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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/602,415	06/23/2003	Wenhong Liu	MSI-1639	9651
22801	7590	04/10/2007	EXAMINER	
LEE & HAYES PLLC 421 W RIVERSIDE AVENUE SUITE 500 SPOKANE, WA 99201			PARK, JUNG H	
			ART UNIT	PAPER NUMBER
			2616	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		04/10/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 04/10/2007.

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lhptoms@leehayes.com

Office Action Summary

Application No.

10/602,415

Applicant(s)

LIU ET AL.

Examiner

Jung Park

Art Unit

2616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on ____ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- ☐ Notice of Informal Patent Application
- ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 20 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.
 - a. The Examiner suggests changing "15" in claim 20 into --16--.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 18 and 19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. Claims 18 and 19 recite the limitation "the multiplexer". There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-17, and 20-37 are rejected under 35 U.S.C. 102(b) as being anticipated by NA et al. (US 2001/0028780, "NA").

Regarding claims 1 and 21, NA discloses a method [and apparatus] of computing, comprising:

- receiving portions of a packetized (extract the intended MPEG2-TS, see 102 fig.3 and ¶.33), multi-program transport stream (MPEG2-TS, see ¶.33) including program specific information (PSI, see ¶.34) about data (PMT & PAT, see ¶.35) in the packetized, multi-program transport stream;
- extracting (extract, see ¶.37), from the program specific information (note: PSI), at least one program identifier (PID, see ¶.37) associated with data in the packetized, multi-program transport stream (PMT, see ¶.37); and
- providing the extracted program identifier (note: PID) to an external application (display, see ¶.38).

Regarding claim 2, NA discloses, "wherein receiving comprises monitoring a demultiplexer (demultiplexer and it's function, see 103 fig.3 and ¶.37)."

Regarding claim 3, NA discloses, "wherein extracting comprises retrieving from the packetized, multi-program transport stream, data that identifies the multiple programs in the transport stream (PIDS, see ¶.37)."

Regarding claim 4, NA discloses, "method of claim 3, wherein the packetized, multi-program transport stream is an MPEG-2 transport stream (MPEG-2, see ¶.33) and

the extracted information comprises information from a program association table (PAT, see ¶.35)."

Regarding claim 5, NA discloses, "wherein the packetized, multi-program transport stream is an MPEG-2 transport stream and the extracted information comprises information from a program map table (PMT, see ¶.37)."

Regarding claim 6, NA discloses, "wherein providing the extracted program identifier to an external application comprises presenting the program identifier in an application program interface (108 fig.3 and ¶.39) accessible by the external application."

Regarding claim 7, NA discloses, "wherein the external application uses the program identifier to configure the output stream of a demultiplexer (program numbers, see ¶.39; the relationships of PIDs and program numbers described in ¶.35 and ¶.36)."

Regarding claim 8, NA discloses, "a computer-readable medium (not shown in fig.3; memory, see ¶.55) having computer-executable instructions for performing the method recited in claim 1 (106 fig.3 and ¶.55).

Regarding claim 9, NA discloses a method comprising:

- extracting program specific information (extracting for parse of PSI, see ¶.34) from the packetized, multi-program transport stream (MPEG2-TS, see ¶.34);

- parsing the program specific information (parse of PSI, see ¶.34) to obtain at least one program identifier (PID, see ¶.35) associated with a program in the packetized, multi-program transport stream (PAT & PMT, see ¶.35); and
- configuring an output of a demultiplexer (program numbers, see ¶.39; the relationship of PIDs and program numbers, see ¶.35 and ¶.36) based on the at least one program identifier (note: PID).

Regarding claim 10, NA discloses, “wherein extracting program specific information invoking an application programming interface (¶.39) to retrieve program specific information from a demultiplexer (¶.34).”

Regarding claims 11, 12, 14, & 15, they are claims corresponding to claims 4, 5, 7, & 8, respectively and are therefore rejected for the similar reasons set forth in the rejection of the claims.

Regarding claim 13, NA discloses, “wherein parsing the program specific information comprises using the program association table to populate a program map table (PAT & PMT, see ¶.36).”

Regarding claim 16, NA discloses, “a method of computing, comprising:

- obtaining a plurality of program identifiers (PIDs, see ¶.37) from a received MPEG-2 transport stream (MPEG2-TS, see ¶.37);
- presenting the plurality of program identifiers (note: PIDs) in a user interface (120 fig.3);

- receiving, from the user interface, a signal (120 fig.3) indicating a program identifier selected from the plurality of program identifiers in the MPEG-2 transport stream (program numbers, see ¶.39; program number & PMT PID, see ¶.36; also see ¶.35); and
- configuring a MPEG-2 demultiplexer based on the selected program identifier (separating a video stream and an audio stream according to PIDs, see ¶.37 and also see the relationship of PIDs and program numbers, see ¶.35-36 and ¶.39)."

Regarding claim 17, it is a claim corresponding to claims 4 & 5 and is therefore rejected for the similar reasons set forth in the rejection of claims 4 and 5.

Regarding claim 20, it is a claim corresponding to claim 8 and is therefore rejected for the similar reasons set forth in the rejection of claim 8.

Regarding claim 22, NA discloses, "wherein the means for receiving comprises a demultiplexer filter (103 fig.3 and ¶.33) implemented as a software object in a filter graph (¶.39)."

Regarding claim 23, NA discloses, "wherein the means for extracting comprises a parser filter (parser, ¶.34) implemented as a software object in a filter graph (¶.39)."

Regarding claim 24, it is a claim corresponding to claim 10 and is therefore rejected for the similar reasons set forth in the rejection of claim 10.

Regarding claim 25, NA discloses, "wherein the transport stream is an MPEG-2 transport stream and the parser filter comprises logic instructions for retrieving a PAT from the transport stream (software program for functions described in ¶.35, 36, & 38) and using information in the PAT to retrieve one or more PMTs from the transport stream (¶.34)."

Regarding claim 26, NA discloses, "wherein the external application comprises a user interface for displaying portions of the extracted program information (108 fig.3; ¶.38-39)."

Regarding claim 27, NA discloses, "comprising means for configuring a demultiplexer based on the program specific information (configuring demux, see ¶.37; PSI, see ¶.37)."

Regarding claim 28, NA discloses a user interface, comprising:

- a first screen area (a background screen, see ¶.39) to display information identifying programs in a transport stream (guide information, see ¶.39);
- a first interface (120 fig.3) to enable selection of a program in the transport stream (display the result, see ¶.39); and a second screen area (to display on a display, see ¶.39), in response to the selection of a program in the transport stream (note: intended programs, see ¶.39), information identifying the streams in the selected program (a plurality of numbers, see ¶.39; program number & PMT PID, see ¶.36) and packet identifiers associated with the streams (PID=XXXX and PID=YYYY, see ¶.35)."

Regarding claim 29, NA discloses, “further comprising a third interface (a display, see ¶.39) to enable viewing of the selected program (¶.39).”

Regarding claim 30, it is a claim corresponding to claims 1 and 8, except the limitation of “a display, a user-input device, and a processor”. NA further discloses, “a display (display, see fig.3), a user-input device (120 fig.3), and a processor (106 fig.3)”.

Regarding claim 31, it is a claim corresponding to claims 9 and 15, except the limitation of “a display, a user-input device, and a processor”. NA further discloses, “a display (display, see fig.3), a user-input device (120 fig.3), and a processor (106 fig.3)”.

Regarding claim 32, it is a claim corresponding to claims 16 and 20, except the limitation of “a display, a user-input device, and a processor”. NA further discloses, “a display (display, see fig.3), a user-input device (120 fig.3), and a processor (106 fig.3)”.

Regarding claim 33, it is a claim corresponding to claims 21, 22, & 23 and is therefore rejected for the similar reasons set forth in the rejection of the claims 21, 22, & 23.

Regarding claims 34-37, they are claims corresponding to claims 24-27, respectively and is therefore rejected for the similar reasons set forth in the rejection of the claims.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 18 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over NA in view of Washington et al. (US 5920572, "Washington").

Regarding claim 18, NA discloses, "wherein configuring an MPEG-2 demultiplexer based on the selected program identifier comprises mapping an audio stream from the selected program to an audio output of the multiplexer (¶1.37)", but does not explicitly disclose the limitation of "pin". However, Washington discloses "pins of demultiplexer (col.21, ln.45-50)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use pins of demultiplexer taught by Washington as interfaces of the demultiplexer of NA so as to have a dedicated audio output of demultiplexer to prevent the audio outputs being lost and reduce transferring errors.

Regarding claim 19, NA discloses, "wherein configuring an MPEG-2 demultiplexer based on the selected program identifier comprises mapping a video stream from the selected program to a video output of the multiplexer (¶1.37)", but does not explicitly disclose the limitation of "pin". However, Washington discloses "pins of demultiplexer (col.21, ln.45-50)." Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention to use pins of demultiplexer taught by Washington as interfaces of demultiplexer of NA so as to have a dedicated

video output of demultiplexer to prevent the video outputs being lost and reduce transferring errors.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jung Park whose telephone number is 571-272-8565. The examiner can normally be reached on Mon-Fri during 6:15-3:45.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP
Jung Park
Patent Examiner



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